

ABSTRACT:

The invention relates to an image processing method of extracting geometrical data of the spine, for extracting the left and right pedicle landmarks of each spine vertebra, comprising steps of:

- acquiring image data of a 2-D frontal image of the spine; associating spine
- 5 States to vertebra positions along the spine and estimating locations of left and right pedicle landmark Candidates in each State; defining a State Cost for forming Couples of left and right pedicle landmark Candidates (P_L and P_R); estimating sets of Best Couple Candidates, in each State, from the lowest State Costs; defining a Path Cost to go from one State to the next State; selecting a pedicle landmark Couple in each spine State (V) among the Best Couple
- 10 Candidates from the minimum Path Costs, and localizing the left and right pedicle landmarks of each spine vertebra from said selected pedicle landmark Couple.

The invention also relates to a system, a medical apparatus and a program product for carrying out the method.

- 15 Application: Medical Imaging; x-ray Medical Systems and apparatus; Program Product for Medical Imaging.

Figure: FIG.7B